



west virginia department of environmental protection

Division of Water & Waste Management
Office of Environmental Enforcement
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Earl Ray Tomblin, Governor
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MEMORANDUM

TO: Underground Storage Tank Owners and/or Operators

FROM: West Virginia Department of Environmental Protection
Division of Water & Waste Management
Office of Waste Management
UST Unit

SUBJECT: Permanent Petroleum Tank Closure

DATE: February 16, 1989 - Revised January 1, 2002; Revised February 4, 2013

PLEASE READ ALL DIRECTIONS CAREFULLY. FAILURE TO COMPLY WITH THE LAWS AND/OR REGULATIONS MAY RESULT IN ENFORCEMENT ACTION BY THE WV DEP OR THE US EPA. AN INDIVIDUAL HOLDING A WEST VIRGINIA DEP CLASS B CERTIFICATION MUST BE ON SITE SUPERVISING THE CLOSURE OR CHANGE-IN-SERVICE.

- I) Subpart G of Part 280 must be complied with fully. All fees must be paid before the closure may begin.
- II) In accordance with 22-17-13, at least 30 days before beginning either permanent closures or change-in-service the owner or operator must submit written notification to the UST inspector at the appropriate DEP District Office to schedule the date the closure will begin. Contact the inspector if an extension of the expiration date is necessary.

The Regulations provide that the American Petroleum Institute Practices 1604 and 2016 may be used to comply with the closure requirements.

All relevant and applicable OSHA and NIOSH Safety Standards must be followed while performing closure activities.

- III) Handling of tank contents:
Liquid Contents/Tank Bottoms:
 - A) The Division of Water & Waste Management strongly advocates the reuse or recycling of the contents. Legitimate recycling is reuse as a fuel and/or returned to a product tank. Mixtures of gasoline and minimal* amounts of water, destined to be used as is or used to produce a fuel, are not wastes.

Promoting a healthy environment.

*NOTE: Minimal, for the sake of this document, shall be defined as a quantity of water in a container of less than or equal to 110 gallons not exceeding 20% of the total fuel/water mixture (20% water/80% fuel). A container with the capacity of greater than 110 gallons may contain a quantity of water not to exceed 10% of the total fuel/water mixture (10% water/90% fuel). Waste mixtures of fuel and water that exceed the 10% or 20% water/fuel limits may be phase separated, at the site of generation, in order to remove the water phase. The water phase would then be evaluated on its own merit (i.e. waste characterization and disposal).

Claims that gasoline is reusable as a fuel must be supported by the following:

- 1) Gasoline to be reused must be managed in a product-like manner, in good containers that are environmentally protective. Management in poor condition and/or leaking containers is an indication that the fuels are wastes instead of product. The container holding the material should be properly labeled as to its contents.
- 2) The BTU value of the gasoline should be at least 5000 BTUs.
- 3) The generator must have a known market for the material.
- 4) The generator must maintain records of the disposition of the gasoline.
- 5) Shipments of the materials must meet all DOT rules and regulations, including proper labeling, placarding and transport vehicle requirements.
- 6) Gasoline or gasoline/water mixtures that are claimed to be product cannot contain tank bottoms.

B) If the tank contents are not being reused as product or fuel as outlined in (A) above, appropriate testing must be performed on the material to determine if the material is a hazardous waste (the material may be declared a hazardous waste without testing at the owner's discretion):

- a) Wastes determined to be hazardous wastes must be managed as such in accordance with 40 CFR 262 (i.e. proper containers, labeled as hazardous waste, dated, limited storage times, etc.).
- b) Hazardous Waste EPA Identification Number: Each site in West Virginia where hazardous wastes are generated must have an EPA identification number. If the site does not already have a number, a temporary number can be obtained by calling the Division of Water & Waste Management, Office of Waste Management at (304) 926-0495. This number is required to properly ship hazardous waste off-site. Please have the following information before you call:

- A. Tank owner's name
- B. Location of the tank(s)
- C. Amount of waste
- D. Waste type (benzene, lead, ignitable, etc.)
- E. Contractor name and phone number
- F. Transporter's EPA Identification Number
- G. Name of disposal facility
- H. Disposal facility's EPA Identification Number

2) Industrial Waste (lab analysis proves the waste is not a hazardous waste):

- a) This waste must be disposed of at a facility permitted to accept non-hazardous industrial wastes.

- IV) The tank and piping must be emptied. The UST system is empty when all materials have been removed using commonly accepted practices. Observe the precautions in API 1604 (Section 4 Permanent Closure and Change in Service). The liquids and tank bottom residues must be removed from the tank by using explosion-proof or air driven pumps. Piping should be drained into the tank. It may be necessary to remove the last few inches of liquid from the bottom of the tank with a hand pump or vacuum truck. Safety precautions must be followed (See API 1604).
- V) The tank must be purged of flammable vapors or inerted. This should be done by following API 1604 Section 4 Permanent Closure and Change in Service. It is important to recognize that the tank may continue to be a source of flammable vapors even after following the vapor freeing procedures. For this reason, caution must be used when working around the tank. Follow API 1604 Section 4. Continued vapor monitoring and safe handling and storage procedures must be applied to the tank to protect human health and the environment (See API 1604 Sections 4).
- VI) The tank must be cleaned by removing all liquids and accumulated tank bottoms. Personnel cleaning the tank should be adequately trained, outfitted, and familiar with the safety precautions necessary when performing this work (see API 2016). For tanks that have contained leaded gasoline it is essential that tank bottoms removal be performed with precautions specified in API 2016. Tank bottoms may be removed by various methods depending on the tank. The simplest method is to wash, brush or sweep the tank bottoms into piles; shovel the tank bottoms into buckets or wheelbarrows; sweep and wash down the tank with a water hose stream; and remove the remaining moisture by using an absorbent. Vacuum trucks may also be used. Any waste material (tank bottoms or absorbent material) must be disposed of properly (see Section III). Care must be taken during tank bottoms removal to minimize the release of vapors from the tank bottoms. After tank cleaning, it is recommended that the tank be processed for scrap metal.
- VII) For tank removal follow the removal procedure in API 1604 Section 4.
- VIII) Site assessments must be performed according to Section 280.72. Sampling must be performed to measure for the presence of a release where contamination is most likely to be present. If there is obvious contamination from a release (e.g. stained soils) a sample must be collected from this area. At a minimum other samples should be collected as:
- One (1) sample in the native soil below each tank;
 - One (1) discrete sample from each of the four (4) pit walls from the tank pit;
 - One (1) from under each dispenser; and
 - One (1) sample every 15 feet along the product piping.
- Further analysis may be required if a release is confirmed. A site sketch of the facility showing the locations of the sample collection points is to be submitted with the closure documentation. **Soil sampling protocol for volatile organics (BTEX and MtBE) must follow the requirements of Method 5035.**

For assessment all soil and/or groundwater must be analyzed for:
Total petroleum hydrocarbons (TPH) by EPA method 8015B reporting GRO and DRO separately and BTEX and MtBE using EPA method 8021B. For all groundwater samples the method's detection levels must be less than or equal to drinking water quality standards. The sample must constantly be kept cool at approximately 42 degrees F (6 degrees C), and should be analyzed within 14 days. A properly completed chain of custody form must accompany the sample to the laboratory. The laboratory performing the analysis must be certified by the WVDEP Division of Water & Waste Management.

- IX) **IMPORTANT NOTICE TO ALL UST OWNERS/OPERATORS CLOSING TANKS:** Since the possibility of encountering contamination at a closure is high, UST owners/operators should develop plans for handling contaminated soils and/or water prior to beginning the actual closure. Refer to the Office of Environmental Remediation’s “Managing Contaminated Soils Memorandum” for further guidance on reporting and managing contaminated soils during tank closures.
- X) Submit two copies of the closure notification form, tank closure form, tank bottoms and liquid disposal and/or reuse/recycling records, tank disposal receipts, copies of lab analysis results and chain of custody form to the UST Inspector at the District Office. DEP records will not be updated until these completed forms are returned. Notification forms registering newly installed tanks must be submitted to the Charleston UST Office. **NOTE: Three copies of the closure report should be submitted for those sites where a Confirmed Release has been issued.** The third copy must be sent to the OER Project Manager.
- XI) Maintain record in accordance with Part 280.34(b)(5) that are capable of demonstrating compliance with these closure requirements. The results of the excavation zone assessment must be maintained by you for at least 3 years after completion of the permanent closure or may be mailed to the West Virginia Department of Environmental Protection, Office of Waste Management, UST Unit if they cannot be maintained at the closed facility.

A Corrective Action Guidance Manual for Leaking Underground Storage Tank Assessments and Corrective Action is available on the DEP web page at <http://www.dep.wv.gov/dlr/oer/lustmain/Pages/default.aspx> or contact OER at (304-926-0455) or (304-238-1220) or their website at <http://www.dep.wv.gov/dlr/oer/lustmain/Pages/default.aspx> for an OER personnel roster.